

Mehmet Murat Kristal

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Operations Management & Information Systems
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Professional Experience

- 2009–Present Associate Professor
Schulich School of Business, York University
- Operations Management
 - Supply Chain Management
 - Management Science: Modeling and Analysis
 - Statistical Research Methods in Operations Management
- 2004–2009 Assistant Professor
Schulich School of Business, York University

Education

- 2000–2005 Ph.D in Operations, Technology and Innovation Management
Kenan-Flagler Business School, University of North Carolina at Chapel Hill
- Dissertation: “Managing for Adaptivity in the Supply Chain Base: Strategic Choices for Manufacturers”
- 1998–2000 Master of Business Administration
Bilkent University, Ankara, Turkey
- 1994–1998 Bachelor of Science, Civil Engineering
Middle East Technical University (METU), Ankara, Turkey

Honours & Awards

- 2020 Recipient – **Award of Excellence** (Minister of Colleges and Universities, Ontario, Canada)
- 2017 Recipient – **York Research Leader Recognition**
- 2016 Recipient – **2016 Best 40 Under 40 Professors Award** (Poets & Quants)
- 2011 Winner – **Outstanding Paper** (Emerald Literati Network Awards for Excellence) for the article, “The effect of quality management on mass customization capability” with X. Huang and R.G. Schroeder

Finalist – **Journal of Operations Management (JOM) Best Paper** for the article, “The effect of an ambidextrous supply chain strategy on combinative competitive capabilities and business performance” with X. Huang and A.V. Roth

- 2009 Winner – **Highly Commended Paper** (Emerald Literati Network Awards for Excellence) for the article, “The climate for supply chain cooperation: The impact of buyer and supplier beliefs on behavior” with D. Johnston
- 2004 Winner – **Best Dissertation Proposal** (SOLE/The International Society of Logistics)
- 2003 **SAP Doctoral Fellow** (UNC-SAP Alliance)
- Winner – **Best Student Paper** (Academy of Management, Operations Management Division)
- Finalist – **Juran Fellowship** (The Juran Center for Leadership in Quality, University of Minnesota)
- 1998 University scholarship for tuition waiver for MBA (Bilkent University, Ankara, Turkey)

Research Funding

- 2022 **Source:** SSHRC Insight Grants Competition (CAD\$90,545)
Topic: Digital Transformation Maturity Index for Financial Institutions
Investigator: M.M. Kristal
- 2021 **Source:** Mitacs Accelerate Grant (CAD\$45,000)
Topic: ISA Cybersecurity Inc.—Automation of Event Detection (ON-ISED)
Investigators: M.M. Kristal and H. Turesson
- 2020 **Source:** Mitacs Accelerate Grant (CAD\$45,000)
Topic: Plansworth—Transforming Financial Planning Software (ON-322)
Investigators: M.M. Kristal and H. Turesson
- 2014 **Source:** SSHRC Insight Development Grants Competition (CAD\$73,394)
Topic: Developing Business Analytics Capability for Competitive Advantage
Investigator: M.M. Kristal

Publications

Journal Articles – Refereed

Cao, T., Cook, W., Kristal, M.M. 2022. Has the technological investment been worth it? Assessing the aggregate efficiency of non-homogenous bank holding companies in the digital

age. *Technological Forecasting & Social Change* 178: 121576.
<https://doi.org/10.1016/j.techfore.2022.121576>.

Furman, E., Diamant, A., Kristal, M.M. 2021. Customer acquisition and retention: A fluid approach for staffing. *Production and Operations Management* 30(11): 4236–4257.
<http://dx.doi.org/10.2139/ssrn.3422404>.

Onder, O., Cook, W., Kristal, M.M. 2021. Does quality help the financial viability of hospitals? A data envelopment analysis approach. *Socio-Economic Planning Sciences* 79(C): 101105.
<https://doi.org/10.1016/j.seps.2021.101105>.

Ahmed, M.U., Kristal, M.M., Pagell, M., Gattiker, T.F. 2019. Building high performance supply-chain relationships for dynamic environments. *Business Process Management Journal* 26(1): 80–101. <http://dx.doi.org/10.1108/BPMJ-05-2018-0139>.

Ahmed, M.U., Pagell, M., Kristal, M.M., Gattiker, T.F. 2019. Micro-foundations of supply chain integration: An activity-based analysis. *Logistics* 3(2): 12.
<http://dx.doi.org/10.3390/logistics3020012>.

Zhu, M., Chen, M., Kristal, M.M. 2018. Modelling the impacts of uncertain carbon tax policy on maritime fleet mix strategy and carbon mitigation. *Transport* 33(3): 707–717.
<https://doi.org/10.3846/transport.2018.1579>.

Ahmed, M.U., Kristal, M.M., Pagell, M., Gattiker, T.F. 2017. Towards a Classification of Supply Chain Relationships: A Routine Based Perspective. *Supply Chain Management* 22(4): 341–374.
<http://dx.doi.org/10.1108/SCM-04-2017-0142>.

Sawaya, W.J., Pathak, S.D., Kristal, M.M., Day, J.M. 2015. Sensing abnormal resource flow using adaptive limit process charts in a complex supply network. *Decision Sciences* 46(5): 961–979. <https://doi.org/10.1111/dec.12162>.

Ahmed, M.U., Kristal, M.M., Pagell, M. 2014. Impact of operational and marketing capabilities on firm performance: Evidence from economic growth and downturns. *International Journal of Production Economics* 154(August): 59–71. <https://doi.org/10.1016/j.ijpe.2014.03.025>.

Kristal, M.M., Pagell, M., Yang, C-L., Sheu, C. 2011. Are supply chain management theories culturally constrained? An empirical assessment. *Operations Management Research* 4(1–2): 61–73. <http://dx.doi.org/10.1007/s12063-011-0048-4>.

Pagell, M., Kristal, M.M. 2011. Is the supply chain management file drawer empty? *Journal of Supply Chain Management* 47(4): 3–10. <https://doi.org/10.1111/j.1745-493X.2011.03245.x>.

Huang, X., Kristal, M.M., Schroeder, R.G. 2010. The impact of organizational structure on mass customization capability: A contingency view. *Production and Operations Management* 19(5): 515–530. <https://doi.org/10.1111/j.1937-5956.2009.01117.x>.

Kristal, M.M., Huang, X., Schroeder, R.G. 2010. The effect of quality management on mass customization capability. *International Journal of Operations & Production Management* 30(9): 900–922. <http://dx.doi.org/10.1108/01443571011075047>.

Kristal, M.M., Huang, X., Roth, A.V. 2010. The effect of an ambidextrous supply chain strategy on combinative competitive capabilities and business performance. *Journal of Operations Management* 28(5): 415–429. <http://dx.doi.org/10.1016/j.jom.2009.12.002>.

Pagell, M., Kristal, M.M., Blackmon, K. 2010. Special topic forum on non-significant and contradictory results. *Journal of Supply Chain Management* 46(1): 74.

Jayanthi, S., Roth, A.V., Kristal, M.M., Venu, L.C-R. 2009. Strategic resource dynamics of manufacturing firms. *Management Science* 55(6): 1060–1076. <https://doi.org/10.1287/mnsc.1090.1002>.

Pagell, M., Kristal, M.M., Blackmon, K. 2009. Special topic forum on non-significant and contradictory results. *Journal of Supply Chain Management* 45(4): 72. <https://doi.org/10.1111/j.1745-493X.2009.03177.x>.

Pagell, M., Kristal, M.M., Blackmon, K. 2009. Special topic forum on non-significant and contradictory results. *Journal of Supply Chain Management* 45(3): 70.

Huang, X., Kristal, M.M., Schroeder, R.G. 2008. Linking learning and effective process implementation to mass customization capabilities. *Journal of Operations Management* 26(6): 714–729. <https://doi.org/10.1016/j.jom.2007.11.002>.

Johnston, D.A., Kristal, M.M. 2008. The climate for co-operation: Buyer-supplier beliefs and behavior. *International Journal of Operations and Production Management* 28(9): 875–898. <http://dx.doi.org/10.1108/01443570810895294>.

Menor, L., Kristal, M.M., Rosenzweig, E.D. 2007. Examining the influence of operational intellectual capital on capabilities and performance. *Manufacturing & Service Operations Management* 9(4): 559–578. <http://dx.doi.org/10.1287/msom.1060.0131>.

Pathak, S.D., Day, J.M., Nair, A., Sawaya, W.J., Kristal, M.M. 2007. Complexity and adaptivity in supply networks: Building supply network theory using a complex adaptive systems perspective. *Decision Sciences* 38(4): 547–580. <https://psycnet.apa.org/doi/10.1111/j.1540-5915.2007.00170.x>.

Journal Articles – Refereed – Under Review

Bicer, I., Johnston, D., Kristal, M.M., Senkon, A. 2020. Rethinking retail inventory performance and financial risk. *Manufacturing & Service Operations Management*.

Onder, O., Kristal, M.M., Diamant, A., Rungtusanatham, M.J. 2022. The affordable care act and hospital closures: A difference-in-differences analysis. *Management Science*.

Working Papers

Cao, T., Kristal, M.M., Rungtusanatham, M.J. 2022. Digitizing retail banking services: An empirical examination of the drivers and outcomes of digitization capability.

Books

Roth, A.V., Schroeder, R., Huang, X., Kristal, M.M. 2008. *Measurement Scales for Operations Management*. Thousand Oaks, CA: Sage Publications.

Publications – Non-Refereed

Kristal, M.M. 2012. “Mining mountains of data is key for Canadian businesses.” *The Globe and Mail*. <https://www.theglobeandmail.com/report-on-business/economy/canada-competes/mining-mountains-of-data-is-key-for-canadian-businesses/article4540604/>.

Case Studies

Kristal, M.M., Crisp, G., Bonello, G., Heighington, K. 2018. *TD Bank Group: Building an Effective Enterprise Data Management Policy*. London, ON: Ivey Publishing.

Kristal, M.M., Leung, F. 2013. *Caterpillar Tunneling: Revitalizing the User Adoption of Business Intelligence*. London, ON: Ivey Publishing.

Conference Presentations

2020 Onder, O., Cook, W., Kristal, M. M.. Does quality help the financial viability of hospitals? A data envelopment analysis approach. INFORMS Annual Meeting (Virtual).

2019 Furman, E., Diamant, A., Kristal, M.M. Customer acquisition and retention: A fluid approach for staffing. POMS Annual Meeting (Washington, DC).

Furman, E., Diamant, A., Kristal, M.M. Customer acquisition and retention: A fluid approach for staffing. CORS Annual Meeting (Saskatoon, SK).

Cao, T., Kristal, M.M., Menor, L.J. Digital transformation in retail banking-digitizing retail banking services. POMS International Conference (Hong Kong).

Cao, T., Cook, W., Kristal, M.M. Measuring the efficiencies of bank holding companies in the digital age. POMS Annual Meeting (Washington, DC).

Cao, T., Cook, W., Kristal, M.M. Measuring the efficiencies of bank holding companies in the digital age. INFORMS Annual Meeting (Seattle, WA).

Cao, T., Kristal, M.M., Menor, L.J. Digital transformation in retail banking-digitizing retail banking services. INFORMS Annual Meeting (Seattle, WA).

- 2018 Furman, E., Diamant, A., Kristal, M.M. Customer acquisition and retention: A fluid approach for staffing. CORS Annual Meeting (Halifax, NS).
- Cao, T., Kristal, M.M., Menor L.J. Digital transformation in retail banking: The role of digital transformed new service development. POMS Annual Meeting (Houston, TX).
- Onder, O., Diamant, A., Kristal, M.M. Evaluating the impact of enhanced process quality on various hospital settings. POMS Annual Meeting (Houston, TX).
- 2014 Johnston, T., Kristal, M.M., Biehl, M., Kaminer, O., Joshi, A. Supplier environmental investment strategies, buyer actions and plant performance. POMS Annual Meeting (Atlanta, GA).
- 2012 Ahmed, M.U., Kristal, M.M., Pagell, M. The impact of functional importance and capability during growth and recession: Operations and marketing compared. Decision Sciences Conference (San Francisco, CA).
- Ahmed, M.U., Kristal, M.M., Pagell, M. The impact of functional importance and capability during growth and recession: Operations and marketing compared. Published in conference proceedings, POMS Annual Meeting (Chicago, IL).
- 2011 Ahmed, M.U., Kristal, M.M., Pagell, M. The impact of functional importance and capability during growth and recession: Operations and marketing compared. Decision Sciences Conference (Boston, MA).
- Sawaya, W.J., Pathak, S.D., Day, J., Kristal, M.M. Utilizing adaptive limit control charts to identify significant events in supply networks. POMS Annual Meeting (Reno, NV).
- 2009 Day, J.D., Kristal, M.M., Pathak, S.D., Sawaya, W.J. Adaptive inventory management: Lessons from a humanitarian aid setting. DSI Annual Meeting (New Orleans, LA).
- Johnson, T., Roth, A.V., Kristal, M.M. Supply chain absorptive capacity. DSI Annual Meeting (New Orleans, LA).
- 2008 Kristal, M.M., Roth, A.V. The effect of an ambidextrous supply chain strategy on operations agility and business performance. POMS Annual Meeting (La Jolla, CA).
- Huang, X., Kristal, M.M., Schroeder, R.G. The impact of organizational structure on mass customization capability: A contingency view. POMS Annual Meeting (La Jolla, CA).
- Kristal, M.M., Huang, X., Rungtusanatham, M., Schroeder, R.G. An exploratory study of business performance of customizers. POMS Annual Meeting (La Jolla, CA).

- 2007 Johnston, D.A., Kristal, M.M. Differences between buyer and supplier beliefs about strategy in cooperative relationships. EUROMA Annual Meeting (Ankara, Turkey).
- Kristal, M.M., Roth, A.V. Effect of adaptive supply chain learning on strategic agility and business performance. INFORMS Annual Meeting (Seattle, WA).
- Huang, X., Kristal, M.M., Schroeder, R.G. Effect of total quality practices on mass customization. POMS Annual Meeting (Dallas, TX).
- 2006 Johnston, D.A., Kristal, M.M. Exploration and exploitation in buyer-supplier relationships. POMS Annual Meeting (Boston, MA).
- Acur, N., Kristal, M.M. The effect of the alignment between NPD capabilities, supply chain and manufacturing strategies on business performance. POMS Annual Meeting (Boston, MA).
- 2005 Kristal, M.M., Roth, A.V. Effect of supply chain adaptivity on combinative competitive capabilities and business performance. AOM Annual Meeting (Honolulu, HI).
- Kristal, M.M., Roth, A.V. A contingency approach to supply chain base adaptivity. INFORMS Annual Meeting (San Francisco, CA).
- Kristal, M.M., Roth, A.V. Effect of supply chain base adaptivity on business performance. POMS Annual Meeting (Chicago, IL).
- Kristal, M.M., Roth, A.V. Measurement of supply chain base adaptivity. MSOM Annual Meeting (Evanston, IL).
- 2003 Kristal, M.M., Roth A.V., Swaminathan, J. Effect of product variety and technology on manufacturing performance: Evidence from the semiconductor industry. AOM Annual Meeting (Seattle, WA).
- Kristal, M.M., Roth, A.V. Supply chain adaptivity. DSI Annual Meeting (Washington, DC).
- Kristal, M.M., Roth, A.V. Adaptive supply chain networks: From theory to application. INFORMS Annual Meeting (Atlanta, GA).
- Kristal, M.M., Roth A.V., Swaminathan, J. Effect of product variety, complexity, and technology on manufacturing performance: Evidence from the semiconductor industry. EURO-INFORMS Annual Meeting (Istanbul, Turkey).
- Kristal, M.M., Roth A.V., Swaminathan, J. An assessment of manufacturing strategies in the semiconductor industry. POMS Annual Meeting (Savannah, GA).

2002 Kristal, M.M., Roth A.V., Swaminathan, J. Effect of product variety and technology on manufacturing performance: Evidence from the semiconductor industry. INFORMS Annual Meeting (San Jose, CA).

Teaching

PhD Level

2017–2018 **OMIS 7100 Selected Topics in Operations Management**
PhD Program, Schulich School of Business, York University

2011–2012 **DCAD 7250 Research Design**
PhD Program, Schulich School of Business, York University

2009–2018 **OMIS 7300 Empirical Research Methods in Operations Management**
PhD Program, Schulich School of Business, York University

Master Level

2021–2022 **OMIS 6610 Digital Transformation in Services**
MBA Program, Schulich School of Business, York University

2020–2021 **MMAI 6050 Artificial Intelligence Consulting Project**
Master of Management in Artificial Intelligence, Schulich School of Business, York University

2018–2021 **MBAN 6090 Analytics Consulting Project**
Master of Business Analytics, Schulich School of Business, York University

2013–2018 **MBAN 6400 Multivariate Business Analytics**
Master of Business Analytics, Schulich School of Business, York University

2012–2016 **OMIS 6000 Operations Research**
MBA Program, Schulich School of Business, York University

Undergraduate Level

2008–2010 **OMIS 4565 Supply Chain Management**
Schulich School of Business, York University

2007–2008 **OMIS 2010 Management Science: Modeling and Analysis**
Schulich School of Business, York University

2005–2006 **OMIS 3010 Management Science: Modeling and Analysis**
Schulich School of Business, York University

2003–2004 **BA 130 Operations Management**

Executive Education

Program Leadership

- 2016–Present Director of the Centre of Excellence in Big Data and Analytics Leadership,
Schulich Executive Education Centre, York University
- 2013–Present Founding Program Director, Master Certificate in Analytics for Leaders
Schulich Executive Education Centre, York University

Teaching

- 2012–2016 Managerial Decision Analysis, Kellogg–Schulich Executive MBA Program
Kellogg Business School, Northwestern University & Schulich School of
Business, York University

Service

York University

- 2021–Present Executive Committee Member, AI & Society Organized Research Unit
Member, Fintech Research Cluster
- 2019–2021 Member, Artificial Intelligence & Society Task Force

Schulich School of Business

- 2021–2022 Member, Admissions Committee
- 2019–2021 Founding Program Director, Master of Management in Artificial
Intelligence
- 2017–2021 Founding Director of the Deloitte–Schulich Cognitive Analytics &
Visualization Lab
- 2012–2021 Member, Executive Committee
Member, Program Planning Committee (*formerly Master's Planning Committee*)
Founding Program Director, Master of Business Analytics
- 2010–2011 Chair, Student Affairs Committee
- 2009–2010 Associate Program Director, International MBA Program
- 2005–2010 Member, Student Affairs Committee

Operations Management & Information Systems (OMIS) Area

- 2021–2022 Chair, Tenure Track Teaching Stream Associate Professor Hiring Committee
- 2020–2021 Member, Tenure Track Professional Stream Assistant/Associate Professor Hiring Committee
- 2014–2018 PhD Director

Professional Contributions & Standing

- 2014 Doctoral Consortium Co-Chair – DSI Annual Conference
- 2012 Associate Program Chair – DSI Annual Conference
- 2010 Co-Chair for Supply Chain Management Track – DSI Annual Conference

Contributions to Academic/Research-based Journals

- 2017–2021 Reviewer, *California Management Review*
- 2017 Reviewer, IEEE
- Reviewer, *International Journal of Production Economics*
- 2012–2019 Senior Editor, *Production and Operations Management*
- 2011 Special Issue Editor, Non-Significant and Contradictory Results, *Journal of Supply Chain Management* (with Mark Pagell and Kate Blackmon)
- 2006–2008 Reviewer, *Manufacturing & Service Operations Management*
- 2005–2021 Reviewer, *Journal of Operations Management*
- 2005–2017 Reviewer, *Decision Sciences Journal*
Reviewer, *International Journal of Operations and Production Management*
- 2004–2005 Reviewer, *Management Science*